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1958—A Year of Recession and Recovery

"Down and up" describes the trend of the economy during 1958 for the nation or for New England. A downward trend of recession during the first few months was followed rather abruptly by an upward trend of recovery, which appeared to be still in progress, though perhaps slowed, as the year drew to a close.

A graphical charting of most statistical measures of business activity, such as production, employment, or business loans, follows this general pattern of down and up. Even business sentiment and consumer attitudes followed this basic pattern. Of course, there are variations in the sharpness of movement and in the timing of the transition. The trough between recession and recovery, for instance, was deep in durable-goods production, but was scarcely discernible in aggregate personal incomes or in consumer expenditures for nondurable goods. Moreover, most statistical series experienced the transition from recession to recovery in the spring, whereas in the case of capital expenditures and inventory build-ups it appears to be just commencing. Yet these are only modifications of the basic 1958 pattern.

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Looking ahead from last January, it was easy to project a continuation of the declining trends which then prevailed, and to conclude that 1958 would present a picture of ever-thickening gloom. Looking back from December in an environment of steady recovery, one may with justification conclude that 1958 was not too bad a year after all, and that it could lead into a brighter 1959.

Manufacturing output is a popularly accepted indicator of general business activity. New Englanders are generally aware that factory output was considerably depressed during the early months of 1958, but later showed unmistakable signs of recovery. The New England manufacturing index confirms this trend statistically. This seasonally adjusted index, in terms of 1950-1952 averages, declined rapidly to a low value of 99 in April, then recovered to 110 by November.

The general pattern of this movement was followed in each of the four industries for which individual indexes are published. As an indication that the cyclical swing was particularly severe in the manufacture of durable goods, the index for the New England primary metals industry dropped from 104 in May 1957 to 70 in April and May of 1958, before recovering to 94 in November.

The flow of ***new orders*** to manufacturers is the ultimate determinant of their production schedules. Nationwide statistics were measuring a contraction in this flow throughout 1957, particularly for durable-goods producers. Warnings were out for the probable cutbacks in production that came later in that year. The order flow was reversed in the early months of 1958, with some stimulus from an acceleration of Government spending programs. Production schedules promptly responded with increases. In the New England area, purchasing agents were on balance reporting a contracting order flow through April, but with a definite reversal of that trend commencing in May.

Inventory retrenchment by manufacturers and tradesmen was an outstanding feature of the recession. On a national basis the shift from inventory accumulation at a $3 billion annual rate to liquidation at a $10 billion rate accounted for a large share of the total decline in gross national product. Return to accumulation lagged considerably behind other aspects of the recovery. Not until fall did New England firms feel that their inventories of raw materials and work in process were increasing again. Even then the augmented volume of shipments was still eating into the stocks of finished products.

Severe retrenchment in ***capital expenditures*** for new plant and equipment by manufacturers was another feature of the recessionary period. Its impact on the economy is still being felt, since the upturn in the rate of capital investment usually lags behind general business recovery until businessmen feel assured that the expanding economy has the momentum to justify the increased investment. This bank's surveys have found that New England manufacturers were cutting back their new capital investments by 23 percent from 1957 to 1958, and that they presently plan a 14 percent cutback from 1958 to 1959. Such decisions, however, are sensitive to current business conditions, and a vigorous recovery might easily induce an upward revision of present plans.

The trend of ***construction*** in New England reflected in part this cautious attitude of manufacturers towards new plant investment, and in part the stimuli, created or natural, which acted in other fields of construction. Total construction contracts in the area during the first 11 months of 1958 were reported by F. W. Dodge Corporation to have been 8 percent greater than a year earlier. Part of the increase was due to higher costs. For the first five months there was a net decline of 4 percent, but with an improving business climate this was offset by a 17 percent increase in the June to November period.

It is significant that for the 11 months' period, contracts for manufacturing buildings were 52 percent less in 1958 than in 1957, and that those for commercial buildings were 8 percent less. Residential contracts were running 4 percent behind for the 11 months' period, but they had been running 30 percent behind through March. Public housing programs and easier availability of mortgage financing were stimulating factors for the pickup in residential building. Highway contracts were increased by 48 percent, largely under the impetus of the Federal aid programs. Contracts for electric light and power systems, which are little influenced by short-run cyclical developments, were nearly three times the corresponding 1957 figure.

New England output of ***electric power*** for public distribution to industrial, commercial, agricultural, and home users continued its long-term growth, but with percentage gains from the previous year more pronounced after midyear.

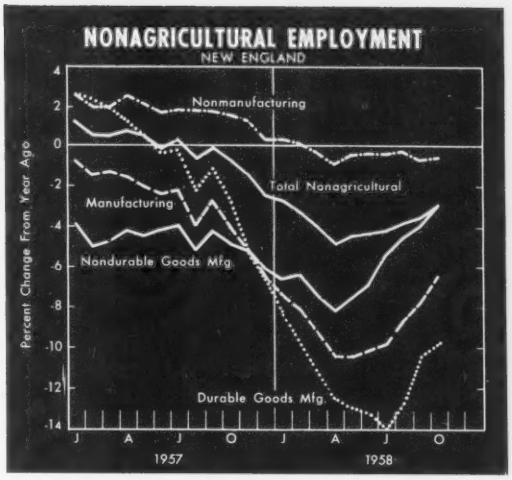
The impact of recession upon ***employment*** was heavy during the early months of the year. Although the turnabout took place rather quickly, full recovery is slow in being attained. In terms of percentage changes from a year earlier, New England nonagricultural employment dropped to a maximum loss of 4.8 percent in April. The 12 months' loss was only 2.1 percent by November. Most nonmanufacturing industries were but little affected, and their aggregate employment at no time reached a 1.0 percent decline from the comparable 1957 figure. Employment in nondurable-goods manufacturing industries, influenced strongly by the weakened status of the New England textile industry, reached a maximum loss of 8.1 percent in April, which was reduced to 1.7 percent in November.

It was in durable-goods manufacturing that the recession hit hardest. Employment in these industries continued to sag until July when it was 14 percent less than a year earlier. This experience would undoubtedly have been much more critical but for the relatively minor concentration of the nation's automobile and steel production in this area. New England's worst blow was in its nonelectrical-machinery industry which suffered a 21 percent loss in jobs in the 12 months to July.

Concentration in weakened durable-goods industries caused employment declines to be relatively sharper in Massachusetts, Rhode Island, and Connecticut. Of the 17 major labor markets in New England, unemployment in July exceeded 6 percent of the labor force in 13, and exceeded 12 percent in the Providence, Fall River, Bridgeport, Waterbury, and New Britain areas. Improvement by November had left no areas in this latter classification.

Claims for unemployment compensation mirrored the employment pattern to an accentuated degree, mounting rapidly to 270,000 in April and then subsiding to about half that level by November. Total unemployment, however, included many who had exhausted their insurance benefits, and was still high by normal standards as the year closed.

Average lengths of factory workweeks were restored to prerecession standards sooner than were the numbers of factory jobs. This fact, together with the upward creep of average hourly wages, meant healthy advances during the autumn months in average weekly earnings, payrolls, and consumer purchasing power.



New England ***department store sales*** during the first half of 1958 encountered a continuation of the hesitant attitude of purchasers which had become apparent in the later months of the previous year. Impaired incomes, or fear of the same, restrained buying, and the stores had to be content with generally smaller dollar volumes of sales than in 1957. The pattern changed after the July 4 holiday weekend, and thereafter, almost without exception, weekly sales exceeded those of corresponding 1957 weeks. Even sales of big ticket items increased. Much of the improvement appeared at the newer suburban shopping outlets, and relatively weak Christmas sales at downtown Boston stores emphasized this shift in shopping habits.

Despite sales gains over 1957 in the last half of 1958, residual tones of caution remain with both stores and customers. The stores continue to order merchandise cautiously, and the 2 percent rise in stocks from a year ago is in keeping with conservative sales expectations. Customers are more reluctant to assume heavy burdens of instalment debt.

Automobile dealers suffered extended hangover effects from their lush 1955 season. Despite lenient credit terms, new car registrations through October in the six states were 22 percent less than in 1957 and 37 percent less than in 1955. Foreign models, small domestically produced models, and used cars sold well, but, in general, the dealership mortality rate was high.

Price indexes rose somewhat during 1958 in both wholesale and consumer market areas. Rates of increase, however, had slowed. Paradoxically, price rises were more frequent during the early recessionary portion of the year than during the later recovery period. The wholesale price index rose from 118.5 in December 1957 to 119.7 in March and then eased to 119.2 in

November. The Massachusetts retail price index rose from 123.0 in December 1957 to 126.3 in July, then eased to 125.7 in December.

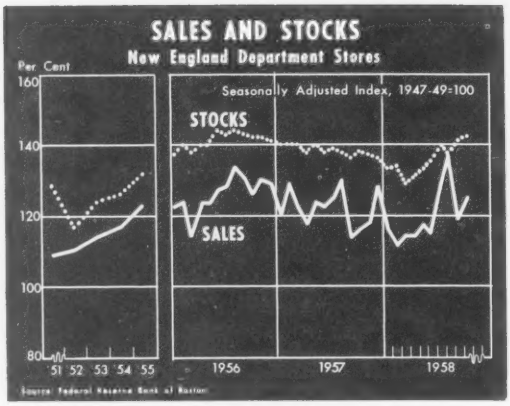
Farm products and their food derivatives explain much of this paradox. Frost damage to some of the early crops, and restricted marketings of livestock, induced a measure of volatility in that field of prices, which was reversed when agricultural commodities came into greater supply. Prices of services generally continued to rise. Price trends for nonagricultural commodities varied, but were in approximate balance. But behind this facade of relative stability in price indexes was widespread cognizance and apprehension of latent inflationary pressures.

Credit and monetary developments in the early months of 1958 indicated that problems of combatting the recession were paramount. With business recovery started, appropriate shifts in monetary policy were made.

Most types of private credit demand were relatively light early in the year. Sharply lower financing needs for new plant, equipment, and inventories reduced business loan demand at commercial banks. Recovery in demand was relatively slow, and outstanding volumes of such loans at New England weekly reporting member banks in late December were still 1 percent less than a year earlier. Smaller amounts of new consumer credit extensions, particularly for instalment purchases of automobiles, interrupted the expansion of that type of credit. Housing benefited from this situation, in that, with less competitive demand for available credit funds, and with the supply of funds increased by Federal Government antirecession programs as well as by personal saving, home mortgages were able temporarily to attract funds which previously had been diverted to more lucrative fields of investment. In this comparatively favorable environment there was a rapid expansion in FHA and VA home loans and in housing starts.

Interest and money rates reflected both the natural forces innate in recession and recovery and the efforts to control them. Short-term rates, exemplified by Treasury bills, commercial paper, and bankers' acceptances fell precipitously in early 1958, and later bounced back most of the way. Business loan rates were adjusted in accordance. Swings in long-term rates were somewhat less in amplitude.

Monetary policy was adapted to meet varying needs to foster business recovery, or to restrain threats of inflation as the trend changed. Discount rates were reduced in steps to 1¾ percent, and later raised in steps to 2½ percent. Reserve requirements of member banks were lowered early in the year. Open market operations of the



Federal Reserve System permitted first an expansion and later a contraction of excess reserves at member banks. Margin requirements for security loans were raised, after earlier drop, as speculative excesses appeared to develop.

Durable-Goods Manufacturing

Although ***durable-goods manufacturing*** had provided many of the fastest growing, best paying industries for the New England economy in the previous boom period, many of those industries experienced the severest cutbacks in orders, production, employment, and profits in 1958.

Probably the hardest hit were the ***nonelectrical-machinery*** producers, and recovery seemed painfully slow to them. Layoffs were heavy and workweeks shortened. Even as late as October the man-hours of labor were reported to be down 23 percent from a year earlier. Orders and even inquiries for machine tools all but disappeared. Perhaps it was some slight consolation to New England producers that business was reported to be worse elsewhere. Makers of textile and paper machinery also experienced a very slow inflow of orders until autumn.

In the ***electrical-machinery*** group the sag in business was milder. There was a considerable shrinkage of operations and employment in the industrial equipment segment of the industry, and recovery was slow. The drop was much less and the upturn much stronger in the communications equipment segment, where research, development, and production have received much sustaining strength from defense procurement activities for guided missiles and other defense devices. Output of home appliances also performed well in recovery.

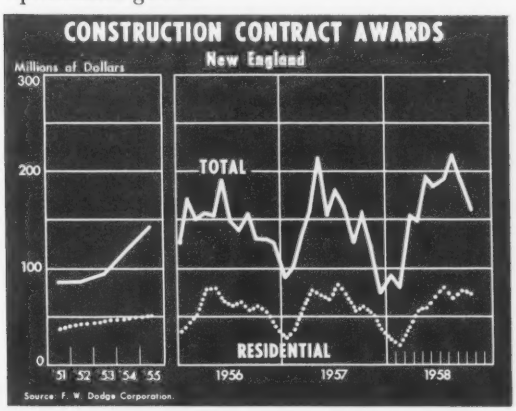
Deteriorating markets for automobiles and for producers' durable equipment made a basic impact upon the ***primary- and fabricated-metals*** industries. During much of 1958, most foundry operations were relatively quiet, the local blast

furnace shut down, and wire mill activity curtailed. Pipe foundries fared somewhat better than others. The brass industry was experiencing a continuation of its own recession of earlier origin. To such cyclical developments might be added the effects of longer-term downtrends in markets for some hand tools, cutlery, plumbing, and heating equipment. In general, however, the metals industries noted some improvement in the late months of the year, in part attributable to more orders from the automobile industry.

Automobile assemblies were a dragging factor on the level of New England's ***transportation equipment*** industry's activities during 1958. With the automobile market depressed, one major assembly plant in the area was permanently closed and the assembly of 1959 models elsewhere was interrupted by labor stoppages. The shift in defense procurement activities towards guided missiles had a major effect on the region's aircraft industry. After midyear employment at Connecticut aircraft plants was relatively stable. Major shipyards in the area were generally busy with sizeable backlogs of orders for merchant and naval vessels.

The year as a whole was poor also for the New England wood-using industries despite improvement in the second half. Excess inventories in the ***lumber*** industry early in the year were difficult to work down, and necessitated reductions in work forces. Some relief came later from the pickup in housing construction. Relief came also from the ***furniture*** industry which was able to build up sizeable backlogs of dealers' orders as consumer markets revived later in the year.

Operations at New England ***instrument*** producing plants in the aggregate were fairly stable after April following an earlier staff curtailment of about 10 percent. Conditions, however, varied much within the industry and indicated some expansion in the production of laboratory equipment, measuring and control devices, and ophthalmic goods.



Nondurable-Goods Manufacturing

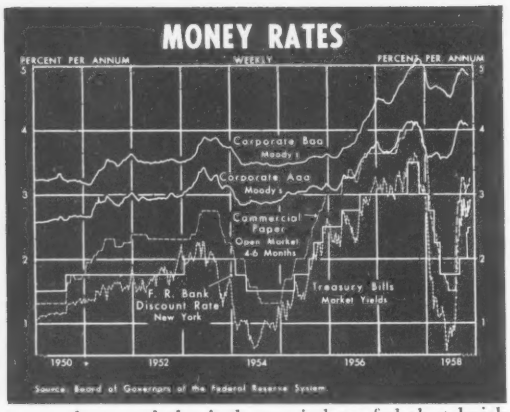
Trends in the ***nondurable-goods manufacturing*** field were a complex of continued contraction in New England's textile industry, and relatively mild cyclical fluctuations in its other soft-goods industries.

For ***textile*** producers, the recession in general business was superimposed upon a long-term decline in their own industry. Under this double burden more mills gave up the struggle. Survivors also had to compete with imports from low-wage foreign producers, and opposed any lowering of tariffs or increases in quotas for those imports. Hopes for an upturn were partially realized after midyear, with some acceleration later as some customers found their inventories inadequate. Woolen and worsted mills were busy during the usual vacation shutdown periods and prices became more competitive with other fibers. Cotton mills shortened vacation closings, and in the fall experienced a splurge of ordering. Demand for synthetic fibers improved and operations at finishing plants quickened. Overall improvement in the industry was encouraging but still leaves a gap from earlier levels of operations.

Apparel makers in turn suffered during much of 1958 from the very cautious ordering policies of retailers. With the improvement in business in the second half of the year, they were able to schedule expanded operations. Towards the close of the year many producers had passed their seasonal peaks of output, but makers of cotton dresses and children's apparel were operating at a good pace. The improvement in retail sales, the currently low volume of trade inventories, and the early date for Easter in 1959 give a more promising outlook.

The same combination of factors has built up an optimistic outlook for New England ***shoe*** manufacturers. Moreover, the impact of recession was relatively mild for them. Ten months' output was only 1.4 percent less than in 1957, and the rate of recovery is appreciably faster than for shoe producers elsewhere in the country. Higher leather and hide prices with possibly increased labor costs in prospect raise pricing problems for spring shoes. Tanneries and shoe findings plants benefited from the improving pace of operations at the shoe plants.

New England ***jewelry*** manufacturers did not enjoy as good business in 1958 as in other recent years. Restricted buying at the retail level meant fewer orders for the manufacturers and consequent reductions in employment and hours of work. A late spurt in orders for Christmas merchandise prolonged the fall production season



somewhat, and the industry is hopeful that brisk Christmas sales at retail outlets will in turn stimulate the placement of substantial orders for spring merchandise.

After a somewhat depressed level of operations during the first half of the year, production by New England's ***pulp and paper*** industry increased during the third and fourth quarters. The pace of recovery, however, varied between segments of the industry. Output of newsprint and some fine types of paper products in December rose above levels of a year ago. In other lines output was still depressed below corresponding 1957 levels. Some in the industry professed to see a flattening in the rate of recovery while others saw the recovery just gathering strength.

New England plants producing ***rubber*** products felt the generally slower pace of business that prevailed during much of 1958, particularly those whose products are utilized by the automobile industry. Industry employment was under year-ago levels throughout the year. During the second half of the year, however, there was some improvement as a result of seasonal expansion of operations at footwear plants and ordering in anticipation of a pickup in auto production.

The ***chemical*** industry in New England experienced but minor interruption to its long-term growth. Employment dropped only 5 percent from its 1957 peak to its minimum 1958 level in July, and at the year end sentiment in the industry saw growth definitely renewed.

Other Industries

On the farms 1958 brought to ***agriculture*** a relatively more successful year than it did to many nonagricultural industries in the cities. It was a comparatively favorable year for New England dairy farmers. Farm milk prices averaged somewhat lower than last year, largely due to a decline in fluid consumption which, in turn, reflected lower consumer incomes. Production held about steady. Prices for cull cows were high, however, and growing conditions were probably the best ever.

Egg and broiler producers enjoyed relatively favorable prices through midsummer, but prices during the latter half of the year were mostly below last year's levels, primarily due to heavier production. The 1957-58 crop of potatoes brought the most favorable price in several years, but the large 1958 fall crop is bringing low returns on marketings to date. Truck gardeners and apple growers were adversely affected by the favorable growing conditions with heavy production inducing severely low prices.

From the sea, New England ***fisheries*** fared better in some respects in 1958 than in 1957, but it requires considerable improvement to bring this industry back to really good times. Food-fish landings were dependent upon variable weather conditions but through November were slightly ahead of the 1957 season despite a serious drop in the haddock catch for the Boston fleet. Ex-vessel prices were generally above those of the previous year. Imports of frozen fish and fillets increased further and continued the vexing problem of foreign competition. Total stocks of fishery products in New England cold storage plants were generally less than a year earlier.

At the beaches, lakes, and mountains, New England caterers to the ***vacation business*** had, if not a record season, at least a generally good one. Winter resort operators, after a slow start in December 1957, due to a dearth of snow, enjoyed a progressively accumulating depth of snow and a progressively accumulating gain in patronage over the previous year. The season as a whole was 13 percent better than the preceding one in measured guest occupancies.

Summer resort operators on the other hand reported 5 percent less guest occupancies than in the record 1957 season. Spells of inclement weather played a part in the decline, as did impaired incomes and an urge to economize. The influence of the recession on vacation spending habits showed up in shopping for less expensive accommodations, relatively more use of housekeeping and camping facilities, and greater attendance at museums, art galleries, and historic sites where costs are usually nominal. Hesitation in the early spring to make advance registration commitments at boys' and girls' summer camps resulted in the first recorded annual decrease in enrollments.

Looking forward from December 1958, with personal incomes largely restored, and with a good early ground cover of snow, it is conceivable that a banner season for ski resort operators will herald a succession of gains throughout the New England economy.

The Prospects for Beryllium Metal

This article is based on a thesis submitted by A. B. T. Werner to the School of Industrial Management, Massachusetts Institute of Technology. Mr. Werner conducted the study with the aid of a research grant from the Federal Reserve Bank of Boston. A copy of the complete thesis is available from the Bank's Department of Research and Statistics.

Scientists seeking ways to trim pounds off missiles and aircraft are investigating beryllium, a metal that is lighter than aluminum and maintains its strength over wide ranges of temperature. One authority estimates that use of beryllium in turbojet-powered transport planes could cut the plane's weight substantially. According to another study, substituting beryllium for steel in a lunar rocket would cut the takeoff weight by 21 percent.

Beryllium, a little known metal, is now used for a variety of industrial purposes, and it has great potential in electronics, nuclear, missile, and aviation technologies. In addition to strength and lightness, it has other properties important for these uses: a high melting point (2345° F), resistance to oxidation, and ability to reflect neutrons when subjected to nuclear bombardment.

But this strategic metal has two big disadvantages: it is costly to mine and difficult to fabricate. In mining, the major unsolved problem is to find economic ways to separate the beryllium from other materials in low-grade ore. The job is now done by hand, sometimes in one-man mines, but this is expensive and possible only in high-grade ores.

Development of economic separation processes could be beneficial to New England miners, which in the past two decades have accounted for 15 percent of the total U. S. production. Although the amount of beryllium mined in the United States is very small, production could be increased with better methods of separating the minerals in low-grade ores. Small deposits of this strategic metal are widely scattered over Connecticut, Maine, Massachusetts, and New Hampshire.

Research work at Massachusetts Institute of Technology has taken care of some of the fabrication problems. Additional research now being sponsored by the U. S. Air Force may resolve many others. The difficulty is that the large grain size of the metal makes it difficult to cast, forge, roll, and machine. One of the Air Force projects is an investigation of techniques for manufacturing sheet beryllium, and another is an attempt to improve the ductility of beryllium by refining it in a vacuum.

Consumption of beryllium ore is over seven times what it was in 1940, and the trend shows no signs of changing.

The following table shows the estimated 1962 demand for beryl. The mineral beryl contains about 4 percent beryllium. The table shows ore by end use (in tons):

Beryllium-Copper and Beryllia (for springs, electrical contacts, and similar industrial uses)	5,000
Beryllium Metal (for use by the U. S. Atomic Energy Commission)	1,500
Beryllium Metal (for use by the aviation and missile industries)	2,000
U. S. Total	8,500
Foreign Countries	2,500
Approximate Free World Demand	11,000

Most of this estimate is based on industrial uses already developed for beryllium, particularly in high-strength, high-hardness alloys, usually copper, aluminum, or magnesium. These alloys are used for springs, electrical contacts, bearings, bushings, pump parts, and precision castings.

Beryllium also forms good alloys for con-

ducting heat and electricity — alloys used in switching gears, sliding contacts, electrodes, and welding jaws.

The 8500-ton estimate for United States beryl consumption in 1962 can be compared to actual consumption in 1957 of only 4500 tons. Many beryllium users and authorities believe this estimate may be too low.

The estimated demand for the aviation and missile industries is much too conservative if problems of fabrication are solved. One authority has estimated annual United States consumption could reach 50,000 tons by 1962.

Others in the aircraft and missile industries doubt that beryllium will be improved enough to induce such great consumption by 1962. Nevertheless, most are willing to guess that there will be sizeable increases.

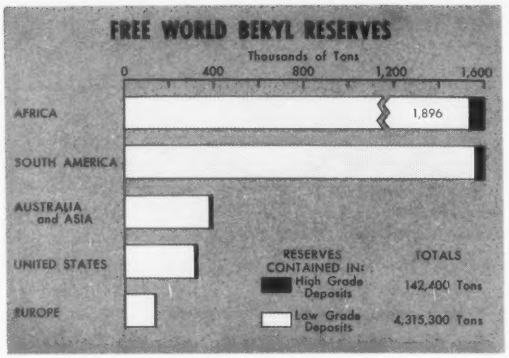
But reserves of high-grade ore in the free world are pitifully inadequate to meet this possible mushrooming demand. Even if low-grade ores are used extensively, beryl can never be as important as such metals as aluminum, copper, or magnesium. The free world's reserves of beryllium in both high- and low-grade deposits are a mere fraction of the reserves of the more plentiful ores. The free world's reserves are shown in the chart on page 9, though deposits outside the United States are only crude estimates.

High-quality ores (containing 1 percent or more beryl) are scarce in all parts of the world. They probably cannot sustain the demands of the free world for more than 10 years, perhaps only five. If the free world is to be supplied, new processes must be developed to unlock low-grade ores.

Beryl Mining and Processing

Almost all beryllium metal is extracted from the mineral beryl. Beryl is found in association with minerals such as quartz, mica, feldspar, and spodumene in deposits of rock called "pegmatite." Beryllium is a small part of the total deposit. Ores containing only 500 parts per million are considered high grade. Most of the high-grade ores in the United States and in many other parts of the world have been worked over, and the remaining deposits often grade down to less than 50 parts beryllium per million.

Traditionally, beryl crystals have been separated from the other minerals by handpicking and sorting. But this crude process is inefficient, wasteful, and expensive, particularly in the United States, where labor can be employed in more productive pursuits. U. S. Bureau of Mines studies have shown that beryl miners in this country often discard over 40 percent of the beryl contained in their ores.



Handpicking is entirely impractical in low-grade ore, where the beryl crystals are fine grained. This kind of ore constitutes most of the remaining beryl reserves in the world. The aim of current research is to develop methods for separating all the minerals in pegmatite rock in a single operation.

Flotation — Ever since World War II when beryllium became a strategic material, the Bureau of Mines in the U. S. Department of the Interior has tried to develop a method for processing low-grade ores. The Bureau has concentrated its efforts on flotation methods. The pegmatite rock is ground up into fine particles and mixed with water. The mixture is then treated with chemicals which cause the granules of some minerals to attach themselves to air bubbles passed up through the water. The air bubbles form a mineral-bearing froth which is mechanically removed from the surface of the solution.

Although the Bureau of Mines has reported successful pilot plant runs which produced commercial beryl concentrates from pegmatite rock, no flotation process has been commercially proven. Many of the preliminary tests were run on unusually high-grade New England ores which were not truly representative of the ores found in this region or the rest of the United States. Later tests, run on low-grade South Dakota ores, were also not representative because the ores were free of the mineral spodumene. Spodumene, which is usually present in pegmatite rock, is troublesome because it acts very much like beryl when treated by flotation methods. No flotation method has yet been devised which will permit the economic separation of beryl and spodumene.

Flotation systems also have the drawback of requiring a substantial investment. One authority has judged that a flotation mill processing 1,000 tons of ore per day would cost $1,500,000. The supply of ore at any one location would have to be sufficient to justify the investment in the mill, which cannot be moved. The proc-

ess is also exacting in its water requirements. For these reasons, the flotation process is not well suited for upgrading pockets of low-grade ores where the supply of raw material will only last a few years. These small deposits are typical of New England.

Another disadvantage of the flotation process is that it is sensitive to slight physical and chemical changes in the ore. It is difficult to combine ores from different mines in a single mill without disrupting the entire process.

But flotation does have important advantages. It is the process which is used most commonly to separate feldspar from other pegmatite minerals, and additional stages can be added for the recovery of scrap mica. This makes it possible, if conditions are right, to use flotation to produce multiple products from a single ore. In this way, heavy overhead cost can be spread over a large volume of sales, with feldspar usually the primary product.

A company in Colorado has just erected a 400 ton per day multiple product flotation processing plant. It has announced that it intends to produce mica, beryl, and possibly other products from pegmatite rock.

Electrostatic Separation – When various minerals are placed together in an electrical field, they tend to react differently because of electrostatic charges. This principle provides another means of concentrating ores. The process, like flotation, requires expensive equipment to pulverize the ore prior to its processing, but the equipment used for the actual processing is generally simple and inexpensive to build and operate. The mill can often be dismantled and moved at little cost. It is a desirable process for mining companies with limited capital resources or limited ore reserves at one location. It also has definite advantages over flotation if the mineral market tends to be volatile.

Electrostatic processes are already used in this country to separate coarse-grained feldspar crystals from pegmatite. Electrostatic separation plants are in operation at Alstead, New Hampshire, and Topsham, Maine, to increase the value and quality of feldspar products. No separation process has been commercially proven for concentrating beryl ore, and electrostatic processes have generally proven to be unsatisfactory for upgrading very fine-grained feldspar. Recently, however, a research consulting firm has conducted encouraging test runs on several low-grade pegmatite deposits from Maine. If this electrostatic technique proves to be commercially usable on a great range of beryl ores—particularly those containing spodumene—many new mining operations may develop.

The Future of U.S. Mines

During the last 20 years, better than 90 percent of the beryl ore consumed or put into stockpile in the United States has been imported from abroad. This has been despite the fact that the Federal Government has had a stockpile purchasing program which has enabled domestic producers to receive up to 50 percent more than foreign producers for identical quality ores.

If in the future flotation or electrostatic methods are used, some mines in the United States may be able to compete in free trade with foreign mines. They would no longer suffer from a serious labor cost disadvantage, and in most cases they are favorably located with respect to industrial markets for feldspar, mica, and quartz. At any rate the cost differential between United States and foreign beryllium ores would be substantially reduced.

The most extensive beryllium ores in the United States are located in North and South Carolina. These deposits contain about 85 percent of the beryl reserves in the country. They remain untapped because of a lack of a method for separating beryl from spodumene and the other minerals in pegmatite rock. If a simple method were devised to process them, miners in that area might be able to produce beryl at less cost than most other domestic miners.

Although New England only has a little more than 2 percent of the beryl reserves in the United States, it has one-third of the remaining high-grade deposits. The development of an electrostatic or similar semiportable and inexpensive process could easily bring about a rapid increase in production.

The flotation process appears to be poorly adapted to the New England pegmatites which are small and scattered. If the market prices of all the pegmatite minerals were sufficiently high, it could be used. However, no cluster of deposits in Connecticut, New Hampshire, or Maine is extensive enough to support a flotation mill operating primarily for beryl for more than five years.

In any case New England will always produce some beryl in small one- and two-man operations. More important, it will probably produce beryl as a minor product in some of the existing feldspar and mica mines. Many of these mines have substantial reserves for the future, and the production of small amounts of beryl might make them much more profitable than they are today. Integrated extraction techniques for the minerals in pegmatite rock appear to be the trend for the future.

Spending Down, Savings Up in 1958

New Englanders spent less and saved more in 1958. Consumer spending lagged slightly behind 1957's record volume, and savings held by financial institutions increased more in 1958 than in the preceding year.

Spending behaved much as other measurements of the region's economic activity. Improvement could be noted in the closing months of the year as the region and nation climbed upward from the economic low points reached in the spring.

In contrast, the rate of savings showed no fluctuation with changing economic conditions within the year. Savings accounts in New England continued to increase throughout the year at a faster rate than in 1957. Nationally the rate of increase was down.

Sales of Retail Stores

Automotive outlets had the weakest sales performance—a decline of slightly more than 10 percent from 1957 sales. This includes sales of both new and used car dealers and tire and automotive accessories stores. Principal reason for the decline was the drop in new car sales. New car registrations in New England were about 20 percent lower than in 1957.

Some outlets had sales increases. Drug and proprietary stores and gasoline service stations sold about 10 percent more in dollar volume than in 1957. Sales increased about 5 percent in food stores and in furniture, homefurnishings, and appliance stores. At least part of the gain in sales of the food group was due to higher prices. Food prices were 3 to 5 percent higher in 1958 than in 1957. Improvement in housing construction helped sales of homefurnishings, particularly in the second half of the year.

Eating and drinking places and lumber, building materials, and hardware dealers had sales volumes slightly less than during 1957. Sales of general merchandise and apparel stores also lagged somewhat behind year-earlier levels.

Nationally, retail sales behaved much as they did in New England. Sales were weak in the early part of the year but gained strength as the year progressed. Sales of the automotive group of outlets declined most from 1957 levels, the percentage decline about the same as in New England.

Food stores scored slightly larger gains nationally than regionally, partly because population growth is more rapid in other parts of the country. New Englanders chose to spend more money on homefurnishings and less on apparel in 1958 than in 1957, while the reverse was true for the nation. Receipts of gasoline stations and drug stores in New England increased more than nationally. Sales of eating and drinking places and lumber, hardware, and building materials outlets declined somewhat more in the region. For other types of stores, sales performances were quite similar.

Sales of New England's department stores generally fell behind 1957 levels during the first six months of 1958. The sole exception was March, when sales rose as a result of Easter falling two weeks earlier in 1958 than in 1957. A more than offsetting drop occurred in April sales volume.

Commencing in July, department store sales gained over year-earlier amounts and by the end of November had nearly wiped out the deficit incurred during the first half of the year. Additional summer openings helped July and August sales. New and enlarged and improved stores have also boosted the region's department store sales volume. The improvement in the region's economic activity has also helped sales, not only of these outlets but of retail outlets in general. Strong Christmas season sales set a new record dollar volume. This gain boosted sales for the year up to equal those of 1957.

On a departmental basis, sales of apparel fared best in comparison with 1957 sales figures. Furs and women's and misses' coats were the strongest selling merchandise, and men's clothing also did well. Sales of homefurnishings have also exceeded year-ago levels, led by appliances and radios, TV's, phonographs, and records. Among the smaller departments, sales of candy, sporting goods and cameras, stationery, and umbrellas marked significant gains from 1957 volumes. Basement store sales lagged behind the upstairs store consistently during the year, principally in the apparel sections.

Decline in Consumer Credit

As sales declined, consumers made a smaller proportion of their purchases on credit. Use of credit in making department store purchases declined along with sales and recovered as sales picked up.

Consumer credit at New England financial institutions decreased during 1958 by more than the national average. It was the first year-to-year decline since 1951. The volume of new credit extended has been less in each 1958 month than in the corresponding 1957 month. Total instalment credit outstanding at the end of November was about 4½ percent less than in the preceding year.

Greater declines were registered in department store instalment accounts than in charge accounts and revolving credit. The strongest recovery has been in charge accounts. Collection ratios held up well during the year.

Rise in Liquid Savings

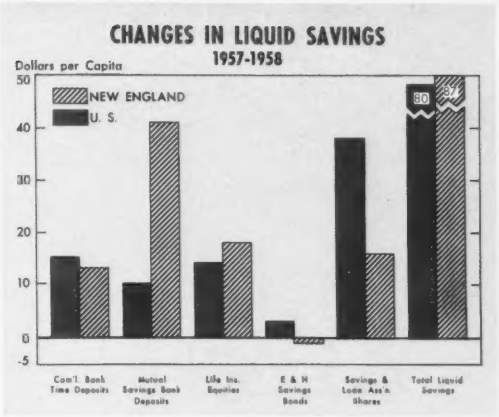
Despite higher levels of unemployment in a recession year, New Englanders continued to add to their savings held at financial institutions. On a per capita basis savings increased by more in New England than in the nation as a whole, reversing the situation that prevailed in 1957.

Liquid savings at year-end 1958 are estimated at $2,227 per capita for New England, compared to $1,564 nationally. This includes commercial bank time deposits, mutual savings bank deposits, savings capital in savings and loan associations and cooperative banks, E and H United States Savings Bonds, and life insurance equities (approximately equal to cash surrender value of life insurance in force).

In New England, as in the nation, savings accounts at mutual savings or commercial banks remain the most popular form of savings. New Englanders on the average held over twice as much in these two types of deposits as the national average. The proportion of savings held between these accounts varies greatly between this region and the United States because few

DOLLAR PER CAPITA LIQUID SAVINGS

	NEW ENGLAND			UNITED STATES		
	1956	1957	1958	1956	1957	1958
Commercial Bank Time Deposits	$ 210	$ 216	$ 229	$ 288	$ 313	$ 328
Mutual Savings Banks Deposits	825	856	897	179	186	196
Life Insurance Equities	550	562	580	467	494	508
E & H Savings Bonds	268	264	263	248	244	247
Savings and Loan Shares	225	242	258	222	247	285
Total	**$2,078**	**$2,140**	**$2,227**	**$1,404**	**$1,484**	**$1,564**



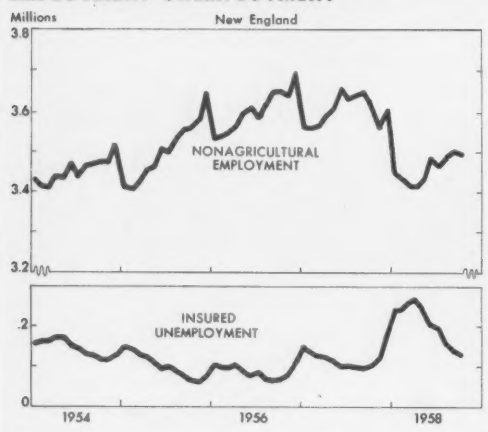
states outside New England have mutual savings banks. Mutual savings bank deposits increased in both New England and the rest of the nation last year by more than in the preceding year. Time deposits in New England commercial banks increased by $13 per capita in 1958 as compared with $6 in 1957. In the nation the rate of increase in these deposits was down, dropping from a $25 increase in 1957 to a $15 increase this year.

Life insurance equities are second to savings accounts as a form of savings in New England. Per capita holdings in this region reached $580 by December 1958, up $18 over 1957.

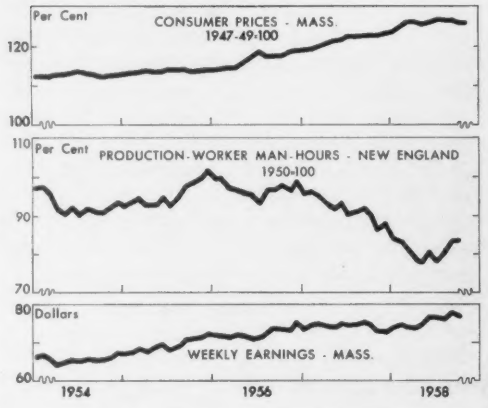
Share accounts at savings and loan associations and cooperative banks have shown the fastest rate of growth of any of the savings media both nationally and in New England. This faster growth is due in large part to the higher rates paid on savings by such institutions. By the end of 1958 per capita holdings were $258 in New England—up $16 over 1957—and $285 in the nation as a whole—up $38 during last year. The total volume of savings and loan shares in New England was greater than time deposits in commercial banks for the first time in 1956. If the current trend continues, this form of savings will surpass holdings of savings bonds during the current year.

The dollar value of E and H savings bonds outstanding in New England actually increased slightly last year even though redemptions were substantially higher than sales. This was possible because the interest accruing on series E bonds more than made up the difference between redemptions and sales. Because population growth was at a faster rate than additions to net amount of bonds outstanding, holdings on a per capita basis declined slightly in this district for the second consecutive year. In the rest of the country bond holdings increased slightly on a per capita basis.

EMPLOYMENT-UNEMPLOYMENT



PRICES, MAN-HOURS, AND EARNINGS



MANUFACTURING INDEXES (seasonally adjusted)	MASSACHUSETTS (1950–52 = 100)			NEW ENGLAND (1950–52 = 100)			UNITED STATES (1947–49 = 100)		
		Per Cent Change from:			Per Cent Change from:				
	Nov. '58	Oct. '58	Nov. '57	Nov. '58	Oct. '58	Nov. '57	Nov. '58	Oct. '58	Nov. '57
All Manufacturing	114	+ 4	+ 5	110	+ 2	0	143	140r	141r
Primary Metals	99	+10	+ 5	94	+ 3	+ 3	127	123r	121
Textiles	49	+ 4	− 6	67	+ 2	+ 2	n.a.	104	95r
Shoes and Leather	120	+ 5	+ 3	120	+ 4	+ 7	n.a.	n.a.	103r
Paper	106	0	+ 4	117	− 1	+ 1	n.a.	170	162

r = revised

	NEW ENGLAND			UNITED STATES		
		Per Cent Change from:			Per Cent Change from:	
	Nov. '58	Oct. '58	Nov. '57	Nov. '58	Oct. '58	Nov. '57
BANKING AND CREDIT						
Commercial Loans ($ millions) (Weekly Reporting Member Banks)	1,474	0	− 5	29,946	+ 1	− 4
Deposits ($ millions) (Weekly Reporting Member Banks)	4,437	0	+ 6	99,889	0	+ 8
Check Payments ($ millions) (Selected Cities)	7,797	−11	+ 1	183,092	−14	− 3
Consumer Installment Credit Outstanding (index, 1950–52 = 100)	210	0	− 5	223	0	− 1
TRADE						
Department Store Sales (index, seas. adj. 1947–49 = 100)	122	− 2	+ 3	137p.	+ 1	+ 3
Department Store Stocks (index, seas. adj. 1947–49 = 100)	142	0	+ 4	153	+ 1	− 1
EMPLOYMENT, PRICES, MAN-HOURS, & EARNINGS						
Nonagricultural Employment (thousands)	3,494	0	− 2	51,325	0	− 2
Insured Unemployment (thousands) (excl. R. R. and Veterans programs)	132	+ 2	+ 9	1,791	+ 2	+19
Consumer Prices (index, 1947–49 = 100)	125.8 (Mass.)	0	+ 2	123.9	0	+ 2
Production-Worker Man-Hours (index, 1950 = 100)	83.9	0	− 3	96.6	0	− 4
Weekly Earnings in Manufacturing ($)	77.62 (Mass.)	+ 1	+ 7	86.58	+ 2	+ 4
OTHER INDICATORS						
Construction Contract Awards ($ thous.) (3-mos. moving averages, Sept., Oct., Nov.)						
Total	156,624	−16	+16	3,039,602	− 9	+21
Residential	68,425	− 6	+24	1,420,344	− 5	+31
Public Works	28,448	−10	+52	529,932	−11	+34
Electrical Energy Production (index, seas. adj. 1947–49 = 100)*	202.3	+ 2	+11	241.3	+ 1	+ 6
Business Failures (number)	64	+ 5	+25	1,121	−12	− 4
New Business Incorporations (number)	646	−29	0	12,090	−19	+30

*Figure for last week of month

p. = preliminary
n.a. = not available